

ABSTRACT OF THE DISCLOSURE

CONTEXT SENSITIVE SCALING DEVICE AND METHOD

5 A method is provided for scaling a source image to produce a destination image. According to the method, a local context metric is calculated from a local portion of the source image. A convolution kernel is generated from a plurality of available convolution kernels based on the calculated local context metric, and the generated convolution kernel is used to generate at least one pixel in the destination image. Also provided is an image scaling device that receives pixels of a source image and outputs pixels of a scaled destination image. The image scaling device includes a context sensor, a kernel generator, and a scaler. The context sensor calculates a local context metric based on local source image pixels, and the kernel generator generates a current convolution kernel from a plurality of available convolution kernels based on the local context metric
10 calculated by the context sensor. The scaler receives the coefficients of the current convolution kernel from the kernel generator, and uses the coefficients to generate at least one pixel of the destination image from pixels of the source image. Additionally, a display device that includes such an image scaling engine is provided.
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